

Listing of Claims:

Claim 1 (original): A method for assaying a sample for the presence of a target molecule comprising:
providing a liquid sample suspected of comprising the target molecule;
contacting the sample with a filter, said filter comprising a sensor molecule attached thereto, said sensor molecule capable of specifically binding to the target molecule, if present;
passing the sample transversely through said filter using a pressure-controlling apparatus under conditions that allow the sensor molecule to bind to the target molecule;
recovering the remaining liquid sample; and
determining whether the target has bound to the sensor.

Claim 2 (original): The method of claim 1, wherein the sample is selected from the group consisting of blood; urine; semen; milk; sputum; mucus; pleural fluid; pelvic fluid, sinovial fluid; ascites fluid; a body cavity wash; eye brushing; skin scrapings; a buccal swab; a vaginal swab; a pap smear; a rectal swab; an aspirate; a needle biopsy; a section of tissue; plasma; serum; spinal fluid; lymph fluid; an external secretion of the skin, respiratory, intestinal, or genitourinary tract; tears; saliva; a tumor; an organ; a microbial culture; and an in vitro cell culture constituent.

Claim 3 (currently amended): The method of claim 1, wherein the sensor molecule comprises an antibody.

Claims 4-5 (canceled)

Claim 6 (currently amended): The method of claim 1, wherein a plurality of different sensors molecules are attached to the filter, wherein each of said plurality can selectively bind to a corresponding different target molecule.

Claim 7 (currently amended): The method of claim 1, wherein the target molecule is a cell surface molecule.

Claims 8-13 (canceled)

Claim 14 (original): The method of claim 1, further comprising comparing a result from said determining to a result obtained from a control sample.

Claim 15 (original): The method of claim 14, where the control sample is a positive control.

Claim 16 (original): The method of claim 14, where the control sample is a negative control.

Claim 17 (currently amended) The method of claim 1, further comprising washing said sample filter to remove non-specifically bound molecules from the said sensor molecule prior to said determining.

Claim 18 (original): The method of claim 1, wherein the sample comprises a water-soluble alcohol in an amount effective to preserve the sterility of the solution toward at least one contaminant.

Claim 19 (currently amended): The method of claim 1, wherein determining whether the target molecule has bound to the sensor molecule comprises contacting the filter with a labeled secondary sensor, and determining whether said labeled secondary sensor is associated with the filter.

Claim 20 (currently amended): The method of claim 19, wherein the first said labeled secondary sensor comprises an agent selected from a chromophore, a lumiphore, a fluorophore, a chromogen, a hapten, an antigen, a radioactive isotope, a magnetic particle, a metal nanoparticle, an enzyme, an antibody or binding portion or equivalent thereof, an aptamer, and one member of a binding pair.

Claim 21 (canceled)

Claim 22 (original) The method of claim 20, wherein the agent is a fluorophore.

Claim 23 (original) The method of claim 22, wherein the fluorophore is a semiconductor nanocrystal.

Claim 24 (original) The method of claim 23, wherein the fluorophore is a fluorescent dye.

Claim 25 (canceled)